

of saponin and polypropylene glycol in addition to SPS would allow a second body fluid specimen of blood to be used in lysis-centrifugation methods of culturing.

CLAIMS

What is claimed is:

1. A collection vessel for collecting and transferring a body fluid specimen comprising: a hollow body having a first and second end; a first seal at said first end; a plunger disposed within said hollow body between said first end and said second end; said plunger providing a second seal; a plunger lock coupled to said plunger;

said plunger lock being configured to selectively maintain said plunger at said second end when at least a portion of said hollow body between said first seal and said second seal is at least partially evacuated;

said plunger lock can further be configured to release said plunger, thereby allowing said plunger to move toward said first seal within said body;

2. A collection vessel for collecting and transferring a body fluid specimen according to claim 1, further comprising:

an airtight junction that interrupts said hollow body forming a first section and second section;

said first section having said first seal;

said second section having said plunger and said plunger lock;

said airtight junction configured to allow for separation of the first and second section and coupling of a transfer needle to said second section.

3. A collection vessel for collecting and transferring a body fluid specimen according to claim 1, wherein said hollow body has the shape of a hollow cylinder.

4. A collection vessel for collecting and transferring a body fluid specimen according to claim 1, wherein said plunger lock comprises a threaded shaft and said plunger comprises a threaded receiver.

5. A collection vessel for collecting and transferring a body fluid specimen according to claim 1, wherein said plunger lock breaks away from said plunger, thereby allowing said plunger to move towards said first seal within said body.

6. A collection vessel for collecting and transferring a body fluid specimen according to claim 1, wherein said plunger lock remains at least in part with said plunger as it moves toward said first seal within said hollow body.

7. A collection vessel for collecting and transferring a body fluid specimen according to claim 1, further comprising an additive within said vessel.

8 . A collection vessel for collecting and transferring a body fluid specimen according to claim 1, wherein the collection vessel is sterilized and packaged to maintain sterility.

9. A method for collecting a first body fluid specimen and a second body fluid specimen, said second body fluid specimen having a lower concentration of living contaminants than said first body fluid specimen comprising the steps of: providing a fluid collection needle having a first end and a second end; providing a sterile evacuated specimen tube comprising; a sterile hollow body having an open end; a sterile seal at said open end; said sterile seal configured wherein said sterile seal is maintained at said open end when at least a portion of said sterile hollow body is at least partially evacuated;

providing a device for collecting a second body fluid specimen comprising; a sterile hollow body having and a closed end; a sterile seal at said open end; said sterile seal configured wherein said sterile seal is maintained at said open end when at least a portion of said sterile hollow body is at least partially evacuated;

providing an antiseptic;

preparing a site on a patient's skin for puncture using said antiseptic; piercing said puncture site using said first end of said fluid collection needle;

at least partially filling said sterile evacuated specimen tube with said first body fluid specimen by piercing through said sterile seal of said sterile evacuated specimen tube using said second end of said fluid collection needle such that piercing through said sterile seal of said sterile evacuated specimen tube does not contaminate said second end of said fluid collection needle;

at least partially filling said device for collecting the second body fluid specimen with said second body fluid specimen having fewer living contaminants than said first body fluid specimen by piercing through said sterile seal of said device for collecting said second body fluid specimen using said second end of said fluid collection needle, such that piercing through said sterile seal of said device for collecting said second body fluid specimen does not contaminate said second end of said fluid collection needle and;

selecting said second body fluid specimen for use in a diagnostic test to detect the presence of organisms in said second body fluid specimen.

10. A method for collecting a first and second body fluid specimen, said second body fluid specimen having a lower concentration of living contaminants than said first body

fluid specimen according to claim 6, wherein the device for collecting said second body fluid specimen is an evacuated culture vessel further comprising a liquid media contained within said sterile hollow body.

11. A method for collecting a first and a second body fluid specimen, said second body fluid specimen having a lower concentration of living contaminants than said first body fluid specimen according to claim 6, wherein the device for collecting the second body fluid specimen is an evacuated specimen tube further comprising an additive of sodium polyanethole sulfonate within said hollow body.

12. A method for collecting a first and a second body fluid specimen, said second body fluid specimen having a lower concentration of living contaminants than said first body fluid specimen according to claim 6, wherein the device for collecting said second body fluid specimen is a collection vessel further comprising:
said hollow body having a second end;
a plunger disposed within said hollow body between said open end and said second end;
said plunger sealing said hollow body;
a plunger lock coupled to said plunger;
said plunger lock being configured to selectively maintain said plunger at said second end when at least a portion of said hollow body between said seal and said plunger is at least partially evacuated;

said plunger lock can further be configured to release said plunger, thereby allowing said plunger to move toward said seal within said body.

13. A method for collecting a first and second body fluid specimen, said second body fluid specimen having a lower concentration of living contaminants than said first body fluid specimen comprising the steps of:

providing a fluid collection needle having a first and a second end, tubing between said first end and said second end;

providing a sterile evacuated specimen tube comprising: a hollow body having an open end; a sterile seal at said open end; said sterile seal configured wherein said sterile seal is at the open end and said hollow body is at least partially evacuated; configured wherein the entire structure is sterilized and packaged to maintain sterility;

providing an evacuated culture vessel comprising: a hollow body having an open end; a sterile seal at said open end; a liquid media within said hollow body; configured wherein the hollow body is at least partially evacuated.

providing an antiseptic

preparing a site on a patient's skin for puncture using said antiseptic;

piercing said site on a patient's skin using said first end of the fluid collection needle;

at least partially filling said sterile evacuated specimen tube with said first body fluid specimen by piercing through said sterile seal of the sterile evacuated specimen tube using said second end of the fluid collection needle;

at least partially filling said evacuated culture vessel with said second body fluid specimen by piercing through said sterile seal of the evacuated culture vessel with said second end of the fluid collection needle;
using said evacuated culture vessel having said second body fluid specimen for a diagnostic test to detect the presence of organisms in said second body fluid specimen.

14. A method for collecting a first and second body fluid specimen, said second body fluid specimen having a lower concentration of living contaminants than said first body fluid specimen comprising the steps of
providing a fluid collection needle having a first and a second end; tubing between said first end and said second end;
providing a first sterile evacuated specimen tube comprising: a hollow body having a open end; a sterile seal at said open end; said sterile seal configured wherein said sterile seal is maintained at said open end when at least a portion of said sterile hollow body is at least partially evacuated
providing a second sterile evacuated specimen tube comprising: a hollow body having a open end; a sterile seal at said open end; an additive of sodium polyanethole sulfate within said hollow body; said sterile seal configured wherein said sterile seal is maintained at said open end when at least a portion of said sterile hollow body is at least partially evacuated
providing an antiseptic

providing a transfer device comprising: a syringe having a hollow body and a plunger; a transfer needle; said syringe and said transfer needle configured wherein pulling back on said plunger allows a movement of fluid into the syringe through said transfer needle;

providing an evacuated culture vessel comprising: a hollow body having an open end; a sterile seal at said open end; a liquid media within said hollow body; configured wherein the hollow body is at least partially evacuated;

preparing a site on a patient's skin for puncture using said antiseptic;

piercing said site on a patient's skin using said first end of the fluid collection needle;

at least partially filling said first sterile evacuated specimen tube with said first body fluid specimen by piercing through said sterile seal of the first sterile evacuated specimen tube using said second end of said fluid collection needle, such that said second end of the fluid collection vessel is not contaminated by said sterile seal of said first sterile evacuated specimen tube;

at least partially filling said second sterile evacuated specimen tube with said second body fluid specimen by piercing through said sterile seal of said second sterile evacuated specimen tube using said second end of the fluid collection needle, such that said second end of the fluid collection needle is not contaminated by said sterile seal of said first sterile evacuated specimen tube;

transferring said second body fluid specimen to said evacuated culture vessel and;

using said evacuated culture vessel having said second body fluid specimen for a diagnostic test to detect the presence of organisms in said second body fluid specimen.

15. A method for collecting a first and second body fluid specimen, said second body fluid specimen having a lower concentration of living contaminants than said first body fluid specimen comprising the steps of:

providing a fluid collection needle comprising: a cannula having a first and a second end;

providing a sterile evacuated specimen tube comprising: a hollow body having a open end; a sterile seal at said open end; said sterile seal configured wherein said sterile seal is maintained at said open end when at least a portion of said sterile hollow body is at least partially evacuated;

providing a sterile collection vessel for collecting and transferring a body fluid specimen comprising: a hollow body having a first and second end;

a first seal at said first end;

a plunger disposed within said hollow body between said first end and said second end; said plunger providing a second seal;

a plunger lock coupled to said plunger;

said plunger lock being configured to selectively maintain said plunger at said second end when at least a portion of said hollow body between said first seal and said second seal is at least partially evacuated;

said plunger lock can further be configured to release said plunger, thereby allowing said plunger to move toward said first seal within said body;

providing an antiseptic

providing a transfer device comprising: a cannula having a first and second end; said first end protected by a first needle shield; said second end protected by a second needle shield;

providing an evacuated culture vessel comprising: a hollow body having an open end; a sterile seal at said open end; a liquid media within said hollow body; configured wherein the hollow body is at least partially evacuated;

preparing a site on a patient's skin for puncture using said antiseptic;

piercing said site on a patient's skin using said first end of said fluid collection needle;

at least partially filling said first sterile evacuated specimen tube with said first body fluid specimen by piercing through said sterile seal of said first sterile evacuated specimen tube using said second end of the fluid collection needle, such that said second end of said fluid collection needle is not contaminated by said sterile seal of said first sterile evacuated specimen tube;

at least partially filling said collection vessel with said second body fluid specimen by piercing through said first seal of said collection vessel using said second end of said fluid collection needle, such that said second end of said fluid collection needle is not contaminated by said first seal of collection vessel;

configuring said plunger lock to release said plunger;

piercing through said first seal of said collection vessel using said first end of said transfer device; piercing through said sterile seal of said evacuated culture vessel, such that said second body fluid specimen flows into said evacuated culture vessel and;

using said evacuated culture vessel having said second body fluid specimen for a diagnostic test to detect the presence of organisms in said second body fluid specimen.

16. A kit for collecting a first and a second body fluid specimen, said second body fluid specimen having a lower concentration of living contaminants than said first body fluid specimen said kit comprising:

a sterile evacuated specimen tube comprising: a sterile hollow body having a open end; a sterile seal at said open end; said sterile hollow body configured wherein said sterile seal is at the open end and a portion of said hollow body is at least partially evacuated and;
a device for collecting a second body fluid specimen comprising; a sterile hollow body having an open end; a sterile seal at said open end; said sterile seal configured wherein said sterile seal is maintained at said open end when at least a portion of said sterile hollow body is at least partially evacuated

17. A kit for collecting a first and a second body fluid specimen, said second body fluid specimen having a lower concentration of living contaminants than said first body fluid specimen said kit comprising:

a sterile evacuated specimen tube comprising: a sterile hollow body having a open end; a sterile seal at said open end; said sterile seal configured wherein said sterile seal is maintained at said open end when at least a portion of said sterile hollow body is at least partially evacuated and;

an evacuated culture vessel comprising: a hollow body having an open end; a sterile seal at said open end; a liquid media within said hollow body; configured wherein the hollow body is at least partially evacuated.

18. A kit for collecting a first and a second body fluid specimen, said second body fluid specimen having a lower concentration of living contaminants than said first body fluid specimen said kit comprising:

a sterile evacuated specimen tube comprising: a sterile hollow body having a open end; a sterile seal at said open end; said sterile seal configured wherein said sterile seal is maintained at said open end when at least a portion of said sterile hollow body is at least partially evacuated and;

a sterile evacuated specimen tube comprising: a hollow body having a open end; a sterile seal at said open end; an additive of sodium polyanethole sulfate within said hollow body; configured wherein said sterile seal is at the open end and said hollow body is at least partially evacuated and.

19. A kit for collecting a first and a second body fluid specimen, said second body fluid specimen having a lower concentration of living contaminants than said first body fluid specimen said kit comprising:

a sterile evacuated specimen tube comprising: a sterile hollow body having a open end; a sterile seal at said open end; said sterile seal configured wherein said sterile seal is maintained at said open end when at least a portion of said sterile hollow body is at least partially evacuated and;

a collection vessel comprising: a hollow body having a first and second end;

a first seal at said first end;

a plunger disposed within said hollow body between said first end and said second end; said plunger providing a second seal;

a plunger lock coupled to said plunger;
said plunger lock being configured to selectively maintain said plunger at said second end when at least a portion of said hollow body between said first seal and said second seal is at least partially evacuated;
said plunger lock can further be configured to release said plunger, thereby allowing said plunger to move toward said first seal within said body;

20. A method for collecting a first and second blood specimen, said second blood specimen having a lower concentration of living contaminants than said first blood specimen comprising the steps of:
providing a blood collection needle having a first and a second end;
providing a collection kit comprising; a sterile evacuated specimen tube comprising: a sterile hollow body having a open end; a sterile seal at said open end; said sterile seal configured wherein said sterile seal is maintained at said open end when at least a portion of said sterile hollow body is at least partially evacuated and;
a collection vessel comprising: a hollow body having a first and second end;
a first seal at said first end;
a plunger disposed within said hollow body between said first end and said second end;
said plunger providing a second seal;
a plunger lock coupled to said plunger;
said plunger lock being configured to selectively maintain said plunger at said second end when at least a portion of said hollow body between said first seal and said second seal is at least partially evacuated;

said plunger lock can further be configured to release said plunger, thereby allowing said plunger to move toward said first seal within said body;

providing an antiseptic;

providing a transfer device comprising: a cannula having a first and second end; said first end protected by a first needle shield; said second end protected by a second needle shield;

providing an evacuated culture vessel comprising: a hollow body having an open end; a sterile seal at said open end; a liquid media within said hollow body; configured wherein the hollow body is at least partially evacuated;

opening said collection kit;

preparing a site on a patient's skin for puncture using said antiseptic;

piercing said site on a patient's skin using said first end of said blood collection needle;

at least partially filling said first sterile evacuated specimen tube with said first blood specimen by piercing through said sterile seal of said first sterile evacuated specimen tube using said second end of the blood collection needle, such that said second end of said blood collection needle is not contaminated by said sterile seal of said sterile evacuated specimen tube;

at least partially filling said collection vessel with said second blood specimen by piercing through said first seal of said collection vessel using said second end of said blood collection needle, such that said second end of said fluid collection needle is not contaminated by said first seal of collection vessel;

configuring said plunger lock to release said plunger;

piercing through said first seal of said collection vessel using said first end of said transfer device; piercing through said sterile seal of said evacuated culture vessel, such that said second body fluid specimen flows into said evacuated culture vessel and; using said evacuated culture vessel having said second blood specimen for a diagnostic test to detect the presence of organisms in said second blood specimen.